

Attorney Docket No.: 10121/04903 (96-P0065CON2)

### REMARKS

Claims 39 - 58 remain pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

Claims 39 - 58 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,842,995 to Mahadevan-Jansen et al. ("Mahadevan") in view of U.S. Patent No. 5,503,559 to Vari ("Vari") in further view of Anidjar et al. ("Ultraviolet Laser-Induced Autofluorescence Distinction Between Malignant and Normal Urothelial Cells and Tissues"). (See 10/9/2007 Office Action, pp. 2-3). The Examiner stated, in support of the rejection, that Mahadevan shows the invention substantially as claimed except for a spectrometer having a distal end "comprising a light emitting portion providing ultraviolet (UV) light," as recited in claim 39. To cure this deficiency, the Examiner has referenced Anidjar, which describes the use of laser-induced fluorescence to discriminate tumors from normal surrounding tissue. (See Anidjar, p. 335).

Claim 39 recites a tissue spectroscopy device comprising a spectrometer having a distal end "comprising a light emitting portion providing ultraviolet (UV) light and a light detector" and "an interventional device for delivering said spectrometer to a tissue." It is clear from the recitation of claim 39 that an *in vivo* spectroscopy device is claimed. Anidjar seeks to employ laser-induced autofluorescence spectroscopy ("LIAFS") to identify occult urothelial tumors. (*Id.*, p. 335, Abstract). However, Anidjar explicitly recites that the LIAFS technique taught therein is performed *in vitro* -- i.e., outside the body in a petri dish or other laboratory setting. (*Id.*, p. 336, Sec. 2.1.2; Fig. 1). Anidjar further notes a motivation for performing the LIAFS procedure *in vitro*, namely the adverse cutaneous effects and time necessary to perform *in vivo* procedures. (*Id.*, p. 335, Introduction). Specifically, Anidjar states that the exposure time required for *in vivo* procedures was unacceptable. Accordingly, it is submitted that Anidjar fails to teach or suggest "a spectrometer comprising a distal end, said distal end comprising a light emitting portion providing ultraviolet (UV) light and a light detector; and an interventional device for delivering said spectrometer to a tissue," as recited in claim 39 and actually teaches away from this invention.

The Examiner has asserted that it "would have been obvious to one of ordinary skill in

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the art to have adapted the cellular-level *in vitro* system of Anidjar et al into the *in vivo* system of Mahadevan-Jansen et al for the purpose of facilitating real-time early detection of urothelial CIS. (See 10/9/2007 Office Action, p. 3). However, it is submitted that there is no motivation to make the proposed combination. Initially, it is noted that, because Anidjar explicitly recites the undesirability of performing spectroscopy *in vivo*, the Examiner lacks proper motivation to modify the Anidjar device to function *in vivo*. (See Anidjar, p. 335, Introduction). Anidjar further notes the motivation to employ an *in vitro* method, namely "to eliminate the spectral influence of light absorption and scattering in tissues." (*Id.*, p. 336, ¶ 3). Accordingly, it is submitted that one skilled in the art would not be motivated to modify the Anidjar device to function *in vivo* as suggested by the Examiner.

Claim 39 recites a "light emitting portion providing ultraviolet (UV) light". In contrast, at no point in the Anidjar disclosure does Anidjar explicitly recite providing ultraviolet light to a tissue. Rather, Anidjar seeks to apply three wavelengths to a tissue specimen, 308 nm, 337 nm, and 480 nm. (*Id.*, p. 336, ¶ 2-3). Anidjar does not recite providing light exclusively in the ultraviolet wavelength spectrum, which, by definition comprises wavelengths of 1 nm. to 400 nm. Rather, a portion of the wavelengths employed by Anidjar falls within the UV range. In view of this teaching, it is submitted that one skilled in the art would not be motivated to modify the Anidjar device to provide only wavelengths in the UV range. Rather, modifying the Anidjar device to apply wavelengths only in the UV range to overcome the limitations of claim 39 would constitute an improper use of hindsight, particularly in light of the fact that Anidjar cites specific reasons for applying each of these three wavelengths. (*Id.*).

It is therefore respectfully submitted that Vari fails to cure the above noted deficiencies of Mahadevan and Anidjar and that Mahadevan, Vari and Anidjar, taken either alone or in combination, fail to teach or suggest a "tissue spectroscopy device comprising: a spectrometer comprising a distal end, said distal end comprising a light emitting portion providing ultraviolet (UV) light and a light detector; and an interventional device for delivering said spectrometer to a tissue," as recited in claim 39 and that claim 39 is allowable for at least this reason. Because claims 40 - 54 depend from and, therefore, include the limitations of claim 39, it is respectfully submitted that these claims are also allowable.

Claim 55 recites limitations substantially similar to those of claim 39, including "providing a spectrometer comprising a distal end, said distal end comprising a light emitting

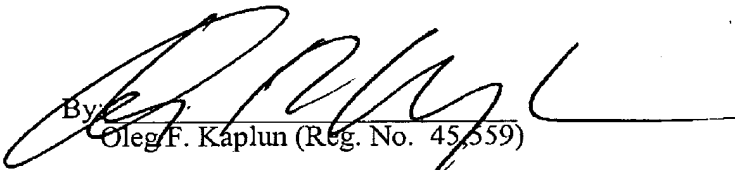
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portion and a light detector; use an interventional device to deliver said spectrometer to a tissue; connecting said spectrometer to a power source; generating ultraviolet (UV) light through said light emitting portion to illuminate said tissue; and using said light detector to measure an optical property of light from illuminated tissue." Thus, it is respectfully submitted that claim 55 is allowable for the same reason noted above in regard to claim 39 and the Examiner should withdraw the 35 U.S.C. § 103(a) rejection of claim 55. Because claims 56 - 58 depend from and, therefore, include the limitations of claim 55, it is respectfully submitted that these claims are also allowable.

In light of the foregoing, Applicant respectfully submits that all of the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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